



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,720	05/23/2001	Eric W. Nielsen	00-357	1496
7590 04/03/2008				
W. Bryan McPherson III Caterpillar Inc. Intellectual Property Department, AB6490 100 N.E. Adams Street Peoria, IL 61629-6490			EXAMINER KE, PENG	
			ART UNIT 2174	PAPER NUMBER
			MAIL DATE 04/03/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/863,720

Applicant(s)

NIELSEN ET AL.

Examiner

Peng Ke

Art Unit

2174

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/07 has been entered.

Claims 1-24 are pending in this application. Claims 1, 18, and 22 are independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4, 6-11, 13, 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hariya et al. U.S. Patent No. 6,727,898 in view of Zuffante US Patent 6,219,049.

As per claim 1, Hariya et al. teaches a method of presenting a graphical user interface for a finite element analysis application on an electronic display device, comprising:

launching a parent graphics window on said electronic display device for displaying an image; (figure 15, column 9, lines 15-32) and

attaching a property input window to said parent graphics window for displaying and manipulating settings and attributes of an entity selected within said parent graphics window,

wherein a first interface element of said property input window includes at least one of an interval count field indicative of a number of mesh entities that will fill said selected entity, an interval size field indicative of a size of said mesh entities that will fill said selected entity, (column 4, lines 25-30; figure 6 column 5, lines 5-10, total number of elements is a count filed) an interval set field indicative of a circumstance under which said interval fields may be modified, (column 8, lines 25-50) a mesh scheme field indicative of a desired mesh scheme and a smooth scheme field indicative of a process of improving said an element quality after a mesh generation. (column 9, lines 20-32)

However, Hariya fail to teach the property input window being separate from the parent graphics.

Zuffante teaches the property input window being separate from the parent graphics. (see col. 7, lines 60- col. 8, lines 10)

It would have been obvious to an artisan at the time of the invention to include Zuffante's teaching with method of Hariya in order to provide users with the ability to make modification to the diagram while viewing the its effective.

As per claim 2, Hariya and Zuffante teach the method of claim 1. Hariya teaches the method further comprising attaching a task window to said parent graphics window for geometry creation, manipulation, and meshing of said entity within said parent graphics window, wherein a first interface element of said task window having a first tab identifier includes at least one of a first iconic button, adapted to providing creation capabilities of at least one of a vertex entity and

curve entity and surface entity and volume entity and brick entity and sphere entity. (column 9, lines 13-32) and

cylinder entity and pyramid entity and torus entity and frustum entity, and a second iconic button adapted to providing modification capabilities of entities by at least one of webcutting and imprinting and cleaning and combining and Boolean operations and healing and positioning and scaling and separating and splitting and copying and merging and tweaking. (column 7, lines 45-column 8, lines 25)

As per claim 4, Hariya et al. teaches the method of claim 1 further comprising attaching an entity tree window to said parent graphics window for displaying a graphical hierarchical representation of the parent child relationship of said entity selected within said graphics window or said entity tree window, wherein first interface element of said entity tree window includes parent and child entity names/IDs, ID icons, and mesh status check boxes. (column 7, lines 45-column 8, lines 25)

As per claim 6, Hariya and Zuffante teach the method of claim 2. Hariya teaches wherein said task window includes an advanced selection dialogue interface for selection of said entity in said graphics window that is particularly difficult to select yet is required for finite element analysis application execution and wherein said advanced selection dialogue interface includes a list box for displaying a current list of at least one said entity available for a particular FEA application command, and a required-entity field for displaying the number and type of said entity required for said finite element analysis application execution. (column 7, lines 45-column 8, lines 25)

As per claim 7, Hariya and Zuffante teach the method of claim 2. Hariya further teaches the method comprising outputting a filter picking dialog interface window from said task window for filtering entities to parse out entities that match or do not match said entity characteristics, wherein said filter picking dialog interface window includes a filter-criteria field for including or excluding filtered entities and performing specified actions on said including or excluding filtered entities, and a register list box for listing at least one registered filter for limiting subsequent selection operations in said graphics window to those that meet said filter criteria. (column 7, lines 40-50; vertical analysis includes filtering analysis)

As per claim 8, Hariya and Zuffante teach the method of claim 7. Zuffante further teaches wherein said registered filter is deactivated, so as to not limit said subsequent selection operations in said graphics window, while remaining a registered filter in said filter picking dialog interface window. (column 9, lines 13-32)

As per claim 9, Hariya and Zuffante teach a computer-readable medium having computer-executable instructions for performing the steps recited in claim 1. (see Hariya, figure 1, items 1)

As per claim 10, it is rejected with the same rationale as claim 1. Supra.

As per claims 11, 13, and 15-17 they are of the same scope as claim 1, 4, and 6-8. Supra.

As per claim 18, Hariya et al. teaches a method of presenting a graphical user interface tabbed-based menuing system on an electronic display device, comprising:

launching a parent window on said electronic display device for displaying an image; ;
(figure 15, column 9, lines 15-32) and

attaching a child window to said parent window wherein said child window includes a first interface element having a first tab identifier and at least one iconic button wherein selection of said at least one iconic button associated with said first interface element outputs a second interface element having a second tab identifier wherein said second interface element overlaps said first interface element except for said first tab identifier. (column 4, lines 25-30; figure 6 column 5, lines 5-10)

However, Hariya fail to teach the property input window being separate from the parent graphics.

Zuffante teaches the property input window being separate from the parent graphics. (see col. 7, lines 60- col. 8, lines 10)

It would have been obvious to an artisan at the time of the invention to include Zuffante's teaching with method of Hariya in order to provide users with the ability to make modification to the diagram while viewing the its effective.

As per claim 19, Hariya et al. teaches the method of claim 18, further comprising alternating between said first interface element and said second interface element by selecting said first tab identifier and said second tab identifier, respectively. (column 9, lines 20-32)

As per claim 20, Hariya et al. teaches the method of claim 18, wherein said first tab identifier and said second tab identifier are oriented at bottom of said first interface element and said second interface element, respectively. (column 9, lines 20-32)

As per claim 21, which is dependent on claim 18, it is of the same scope as claim 9.
Supra.

As per claim 22, it is rejected with the same rationale as claim 18. Supra.

As per claims 23 and 24, they are of the same scope as claim 19 and 20. Supra.

Claims 3, 5, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hariya et al. U.S. Patent No. 6,727,898 in view of Zuffante US Patent 6,219,049 further in view of Jordan et al. U.S. Patent No. 5,745,113.

As per claim 3, Hariya et al. teaches the method of claim 1. However, Hariya fails to teach the device comprises attaching a textual input window to said parent graphics window wherein first interface element of said textual input window includes a command line for entry of textual commands for said finite element analysis application execution.

Jordan teaches a device comprises attaching a textual input window to said parent graphics window wherein first interface element of said textual input window includes a command line for entry of textual commands for said finite element analysis application execution. (figure 2. item text)

It would have been obvious to an artisan at the time of the invention to include Jordan's teaching with method of Hariya to allow user to enter command in text.

As per claim 5, Hariya et al. teaches the method of claim 1. However Hariya fails to teach the device comprising attaching a textual output window to said parent graphics window wherein first interface element of said textual output window includes an output line having textual feedback of activity executed by said finite element analysis application.

Jordan teaches a device comprising attaching a textual output window to said parent graphics window wherein first interface element of said textual output window includes an output line having textual feedback of activity executed by said finite element analysis application. (column 12, lines 1-25)

It would have been obvious to an artisan at the time of the invention to include Jordan's teaching with method of Hariya to allow user to review input history.

As per claims 12 and 14, they are of the same scope as claims 3 and 5. Supra.

Response to Arguments

Applicant's arguments with respect to claims 1-24 have been considered but are deemed to be moot in view of the new grounds of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peng Ke whose telephone number is (571)272-4062. The examiner can normally be reached on M-Th and Alternate Fridays 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Peng Ke

/Peng Ke/
Primary Examiner, Art Unit 2174